

REMARKS

In the Office Action of July 3, 2008, all of the claims were rejected under 35 U.S.C. § 103 as unpatentable over Joy et al. (USP 4,454,647) in view of Lee et al. (US 2002/0076879). In this RCE, claim 1 has been amended and claim 15 has been added as a new claim. Reconsideration and allowance of the claims in light of the amendments and arguments herein are respectfully requested.

Amended Claim 1 and New Claim 15

Claim 1, as amended, provides:

A semiconductor component with trench isolation for defining active regions in a semiconductor substrate, the trench isolation comprising:

a deep isolation trench with a first covering insulation layer below a surface of the semiconductor substrate and a second covering insulation layer over the first covering insulation layer and above the surface of the semiconductor substrate, a side wall insulation layer, an electrically conductive filling layer, which is electrically connected to a predetermined doping region of the semiconductor substrate in a bottom region of the isolation trench; and

further comprising:

a trench contact, which comprises:

a deep contact trench with a side wall insulation layer and an electrically conductive filling layer, which is likewise electrically connected to the predetermined doping region of the semiconductor substrate in a bottom region of the contact trench;

a trench contact insulation layer above a surface of the electrically conductive filling layer; and

a contact opening through the trench contact insulation layer and in contact with the surface of the electrically conductive filling layer.

Support for a semiconductor component with trench isolation having a contact opening through a trench contact insulation layer is shown in at least FIG. 1N and

discussed in at least ¶¶ 35 and 38 of the present application. Neither Joy et al. nor Lee et al. disclose the contact opening as claimed. Moreover, neither Joy et al. nor Lee et al. discuss any shortcomings that would be resolved by having a contact opening through a trench contact insulation layer. Therefore, one skilled in the art would not be motivated to modify either reference to include this feature. Claim 1, as amended, is believed allowable. Claims 2-6 and 15 depend from claim 1 and are believed allowable for at least the same reasons.

New claim 15 provides:

The semiconductor component of claim 1, further comprising a gate oxide layer over a surface of the second covering insulation layer.

Support for claim 15 is at least shown in FIG. 1N and discussed at least in ¶ 38 of the present application. Neither Joy et al. nor Lee et al. disclose a gate oxide layer over a surface of the second covering insulation layer. Claim 15 is believed allowable.

Applicants respectfully request the allowance of claims 1-6 and 15.

CONCLUSION

Therefore, in view of the above remarks, we respectfully submit that this application is in condition for allowance and such action is earnestly requested.

If for any reason the Examiner is not able to allow the application, he is requested to contact the Applicants' undersigned attorney at (312) 321-4200.

**BRINKS
HOFER
GILSON
& LIONE**

Respectfully submitted,

/John R. Lagowski/
John R. Lagowski
Registration No. 41,922
Attorney for Applicant